

AMENDMENTS TO THE CLAIMS

It is respectfully requested that claim amendments indicated in the claims section which begins on the next page of this Response be entered herein. No new matter is entered. Support for the claim amendments in the original specification is pointed out in the Remarks section, when applicable.

1) (CURRENTLY AMENDED) A composition of matter useful as a phosphor in light emitting diodes, which comprises a material described by the formula:



in which x and y are each independently any value between 0 and 1, subject to the proviso that the sum of x and y is equal to any number in the range of between about 0.75 and about 1.25, and subject to the proviso that x is equal to at least 0.2, and wherein Cu is present in any amount between about 0.0001 % and about 5 % in mole percent based on the total molar weight of said composition.

2) (CURRENTLY AMENDED) A composition according to claim 1 wherein ~~$0 \leq x \leq 1$~~
 $0.2 \leq x \leq 1$ and $0 \leq y \leq 1$.

3) (ORIGINAL) A composition according to claim 1 wherein $0.5 \leq x \leq 1$ and $0 \leq y \leq 0.5$.

4) (CURRENTLY AMENDED) A composition ~~according to claim 1~~ of matter useful as a phosphor in light emitting diodes, which comprises a material described by the formula:



wherein $0 \leq x \leq 0.5$ and $0 \leq y \leq 0.5$, and subject to the proviso that the sum of x and y is equal to any number in the range of between about 0.75 and about 1, and wherein Cu is present in any amount between about 0.0001 % and about 5 % in mole percent based on the total molar weight of said composition.

5) (CURRENTLY AMENDED) A composition according to claim 1 wherein $0 \leq x \leq 0.5$

$0.2 \leq x \leq 0.5$ and $0.5 \leq y \leq 1.0$.

6) (CANCELLED)

7) (CANCELLED)

8) (CURRENTLY AMENDED) A composition of matter useful as a phosphor in light emitting diodes, which comprises a material described by the formula:



in which x and y are each independently any value between 0 and about 1, subject to the proviso that the sum of x and y is equal to any number in the range of between about 0.75 and about 1.25; and subject to the proviso that x is not zero, wherein A comprises at least one additional element selected from the group consisting of: Ag, Al, Ce, Tb, Cl, I, Mg, and Mn, including mixtures thereof, and wherein Cu is present in any amount between about 0.0001 % and about 5 % in mole percent based on the total molar weight of said composition.

9) (CURRENTLY AMENDED) A composition according to claim 8 wherein $0 \leq x \leq 1$

$0.001 \leq x \leq 1$ and $0 \leq y \leq 1$.

10) (ORIGINAL) A composition according to claim 8 wherein $0.5 \leq x \leq 1$ and $0 \leq y \leq 0.5$.

11) (CUURRENTLY AMENDED) A composition according to claim 8 wherein $0 \leq x \leq 0.5$
 $0.001 \leq x \leq 0.5$ and $0 \leq y \leq 0.5$.

12) (CURRENTLY AMENDED) A composition according to claim 8 wherein $0 \leq x \leq 0.5$
 $0.001 \leq x \leq 0.5$ and $0.5 \leq y \leq 1.0$.

13) (CANCELLED) A composition according to claim 8 wherein $x = 0$, and $y = 1$.

14) (ORIGINAL) A composition according to claim 8 wherein $x = 1$, and $y = 0$.

15) (ORIGINAL) A composition according to claim 8 wherein the total amount of A present is
any amount between about 0.0001% and about 5 % in mole percent based on the total molar
weight of said composition.

16) (ORIGINAL) A composition according to claim 9 wherein the total amount of A present is
any amount between about 0.0001% and about 5 % in mole percent based on the total molar
weight of said composition.

17) (ORIGINAL) A composition according to claim 10 wherein the total amount of A present is
any amount between about 0.0001% and about 5 % in mole percent based on the total molar
weight of said composition.

18) (ORIGINAL) A composition according to claim 11 wherein the total amount of A present is any amount between about 0.0001% and about 5 % in mole percent based on the total molar weight of said composition.

19) (ORIGINAL) A composition according to claim 12 wherein the total amount of A present is any amount between about 0.0001% and about 5 % in mole percent based on the total molar weight of said composition.

20) (CURRENTLY AMENDED) A light emitting device comprising:

a) a light source selected from the group consisting of: light-emitting diodes and lasers, wherein said light source emits light having a frequency of between about 360 and about 480 nanometers; and

b) a phosphor described by the formula:



in which x and y are each independently any value between 0 and 1, subject to the proviso that the sum of x and y is equal to any number in the range of between about 0.75 and about 1.25, and subject to the proviso that x is not zero and wherein Cu is present in any amount between about 0.0001 % and about 5 % in mole percent based on the total molar weight of said composition.

21) (CURRENTLY AMENDED) A light emitting device according to claim 20 wherein said phosphor further comprises at least one additional element selected from the group consisting of: Ag, ~~Al~~, Ce, Tb, Cl, I, Mg, and Mn, including mixtures thereof.

22) (ORIGINAL) A light emitting device according to claim 21 wherein the total amount of said at least one additional element present is any amount between about 0.0001 % and about 5 % in mole percent based on the total molar weight of said composition.

23) (ORIGINAL) A light emitting device according to claim 20 comprising a mixture of at least two different phosphors described by said formula.

24) (ORIGINAL) A light emitting device according to claim 21, comprising a mixture of at least two different phosphors described by said formula.

25) (ORIGINAL) A light emitting device according to claim 22, comprising a mixture of at least two different phosphors described by said formula.

26) (ORIGINAL) A light emitting device according to claim 20, wherein said phosphor emits white light.

27) (ORIGINAL) A light emitting device according to claim 21, wherein said phosphor emits white light.

28) (ORIGINAL) A light emitting device according to claim 22, wherein said phosphor emits white light.

29) (ORIGINAL) A light emitting device according to claim 23, wherein said mixture of phosphors emit white light.

30) (ORIGINAL) A light emitting device according to claim 24, wherein said mixture of phosphors emit white light.

31) (ORIGINAL) A light emitting device according to claim 25, wherein said mixture of phosphors emit white light.

32) (CURRENTLY AMENDED) A light emitting device as set forth in claim 20, further comprising a phosphor described by the formula:



in which x and y are each independently any value between 0 and about 1, subject to the proviso that the sum of x and y is equal to any number in the range of between about 0.75 and about 1.25 and subject to the proviso that x is not zero; wherein A comprises at least one additional element selected from the group consisting of: Ag, Al, Ce, Tb, Cl, I, Mg, and Mn, including mixtures thereof, and wherein Cu is present in any amount between about 0.0001 % and about 5 % in mole percent based on the total molar weight of said composition.

33) (ORIGINAL) A light emitting device according to claim 32 wherein the total amount of A present is any amount between about 0.0001% and about 5 % in mole percent based on the total molar weight of said composition.

34) (ORIGINAL) A device according to claim 32, wherein the phosphors emit white light.